

### **REMARKS/ARGUMENTS**

Claim 1-11 are pending in the present application. Claim 11 is a newly added claim. Support for claim 11 can be found at, for example, page 19, lines 6-13 of the specification, or original claims 1 and 8. No new matter has been added. It is respectfully requested that the present application be reconsidered in view of the following remarks.

The rejection of claims 1-10 under 35 U.S.C. 103 is maintained for the reasons of record and the two additional reasons stated in the Examiner's Advisory Action. In the Advisory Action dated October 6, 2003, the Examiner maintained the opinion that the light scattering method used in the present invention is a functional equivalent to the aperture impedance method disclosed by Bentley. To support this statement, the Examiner cited two references, namely, Coulter (U.S. 2,656,508) and Zelmanovic (U.S. 5,817, 519). Coulter is cited to show that the aperture impedance method is well known. Zelmanovic is cited to show that both the light scattering and aperture impedance methods are used in the art of blood cell counting. Thereby, the Examiner concluded that these two methods are old and well known in the art and clearly recognized as functional equivalents by persons of ordinary skill in the art.

In addition, the Examiner further maintained the opinion that the fluorescence method used in the present invention is a functional equivalent to the absorbance method disclosed by Bentley. The Examiner, however, did not provide any evidence to support this statement.

We respectfully traverse. As we have stated previously, contrary to the Examiner's statement, **the scattergram of Bentley is not similar to that of the present invention**. Lipid particles, leukocytic cells and erythroblastic cells are generally contained in a marrow sample. As shown in Fig. 1 and Fig. 2 of Bentley, although lipid particles and leukocytic cells are classified, erythroblastic cells are not identified. In contrast, as shown in Fig. 2 of the present invention, in addition to lipid particles and leukocytic cells, erythroblastic cells are identified as well. This clearly shows that the combination of aperture impedance and absorbance methods of Bentley is not equivalent to the combination of light scattering and

fluorescence methods of the present invention. In other words, the aperture impedance and absorption methods are not interchangeable to the light scattering and fluorescence methods of the present invention. Even if the aperture impedance and absorption methods were used to substitute for the light scattering and fluorescence methods of the present invention, the same result or effect would not be obtained.

The Examiner has not addressed the above facts.

Further, it is a well-settled law that in determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). In the present case, the Examiner presented individual elements in the prior art (impedance and absorbance) which are equivalent to the recited elements of the present invention (light scattering and fluorescence), then concluded that the present invention was obvious in view of the prior art. The Examiner did not compare the presently claimed invention as a whole to the prior art. For example, the Examiner did not compare the result of the present invention as a whole to that of the Bentley and even did not comment on our remarks showing that the result of the present invention is different from that of Bentley. Applicants believe this does not comply with the law under 35 U.S.C. 103.

As we previously cited, in order to rely on equivalents as a rationale supporting an obviousness rejection, the equivalency must be recognized in the prior art, and cannot be based on applicant's disclosure or the mere fact that the components at issue are functional or mechanical equivalents. *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958); *in re Scott*, 323 F.2d 1016, 139 USPQ 297 (CCPA 1963); *Smith v. Hayashi*, 209 USQ 754 (Bd. of Pat. Inter. 1980).

There is no teaching that using light scattering and fluorescence in classifying and counting leukocytic cells and erythroid cells in a bone marrow fluid is equivalent to using impedance and absorption.

Even if individually comparing the light scattering and impedance methods with the fluorescence and the absorption methods, respectively, as the Examiner did, Applicants do not think they are equivalent to each other. As we previously stated, these two pairs of methods use different mechanisms and have different effects on the final analytical result.

It is true that the Zelmanovic reference relied by the Examiner mentions both the aperture impedance and the light scattering methods. This fact, however, does not necessary mean that the two methods are equivalents to each other. In fact, based on the Zelmnaovic reference, these two methods have different problems and have different effects on the analytical results. For example, the light scattering method does not provide absolute platelet counts (see col. 3., lines 29-36). In addition, when red blood cells become small or if they fragment, the distinction between the disparate cell populations becomes blurred when using the light scattering method (col. 3, lines 5-10. On the other hand, by using the aperture impedance method, in cases where platelets and other particles are of overlapping size, the distinctions blur, and the best that the aperture impedance method can do is to recognize this failure (see the paragraph bridging col. 2 and col. 3). Since these two methods operate in different ways and have different shortcomings, they are not equivalents to each other. Likewise, the methods of fluorescence and absorption methods apply different mechanisms, are operated differently, and must have different effects on the accuracy of the analysis. The Examiner did not cite any reference teaching that fluorescence and absorption methods are equivalents to each other.

The reasons discussed above also apply to the patentability of the newly added claim 11, which is supported by, for example, the original claim 1 and 8. In addition, claim 11 recites detecting "side scattered light" rather than "scattered light", which constitutes another ground that claim 11 is patentable from the prior art.

For the reasons expressed above, Applicants believe that the pending claims are patentable and in condition of allowance. Early examination and favorable consideration of the above-identified application is earnestly solicited.

Any additional fees or charges required at this time in connection with the application may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

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Respectfully submitted,  
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